

PROJECT FACT SHEET

New Technology for Improving Breast Cancer Follow-up Care

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Dr. Syed Sibte Raza Abidi and the *Beast Cancer Follow-up Clinical Decision Support System*

A team led by a researcher at Dalhousie University has developed a new decision support system to help doctors in delivering improved follow-up care to breast cancer patients.

With support from the NSHRF's Capacity Program, Dr. Syed Sibte Raza Abidi, Director of Health Informatics at Dalhousie University collaborated with Dr. Eva Grunfeld, Director, Cancer Outcomes Research at Cancer Care Nova Scotia and engaged a team of doctoral and undergraduate students in the university's Faculty of Computer Science on this project.

Dr. Abidi saw the benefits of using information technology to improve patients' health while working on a telehealth project for the Malaysian government in 1998. That project sparked his interest in combining information technology with healthcare delivery.

The system, called the *Beast Cancer Follow-up Clinical Decision Support System*, developed by Dr. Abidi's team is a computer-based version of the Clinical Practice Guidelines for breast cancer patients. These Guidelines are usually a paper-based resource used by physicians to locate the best and most relevant evidence about the treatment of diseases and conditions. "We were fortunate," noted Dr. Abidi, "to have Dr. Grunfeld on our team who wrote Clinical Practice Guidelines for Breast Cancer Care so we were able to access her expertise to ensure the technology met the needs of the physician in providing care." By computerizing the guideline and implementing it as a computerized decision support system, Dr. Abidi's team was able to translate the guideline into the practice of family physicians (and other non-experts) who can now provide breast cancer follow-up.

The decision support system responds to the patient's information (symptoms, age, other medical conditions) entered by each patient's family physician and generates treatment as well as other recommendations based on the relevant medical evidence available. The benefits of this system will provide the doctor, especially family physicians, with the most up-to-date information available because the system is based on best evidence. "This will have the added benefit of providing standardized care, enhancing patient safety and minimizing medical errors, all at the doctor's finger tips," remarked Dr. Abidi.

“This system has the potential to not only be used by physicians but also other members of the health care team, and most importantly the patient benefits,” noted Dr. Abidi. “The patient is provided a copy of the treatment options, written in plain language so patients can make informed decisions regarding their health.”

Dr. Abidi believes that the development of the decision support system would not have been possible without the support of the Foundation. “The Nova Scotia Health Research Foundation is very receptive to innovative research ideas and their support laid the groundwork for the development of this project.”

The funding the NSHRF provided Dr. Abidi allowed for the creation of the desktop version (installed on computers within a doctor’s office) of the system. Dr. Abidi’s team have continued working on this project and developed a web-based version of the system that can be used on any computer connected to the internet. The next step will be a pilot study to test the system to determine how well it functions under real-life working conditions.